AMSAT News Service Weekly Bulletins
Issue: ANS-144
Date: 1992-05-23
Sources: amsat-ans-1992-ans-144.01.txt

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| Relayed from packet radio via |
| N8EMR's Ham BBS, 614-895-2553 |
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SB SAT @ AMSAT $ANS-144.01
DOVE TESTING PRODUCES WORDS!

HR AMSAT NEWS SERVICE BULLETIN 144.01 FROM AMSAT HQ
SILVER SPRING, MD MAY 23, 1992 BID:$ANS-144.01
TO ALL RADIO AMATEURS BT

DOVE (DO-17) Speech Testing Reaches Milestone

DOVE is currently on 2M and is running a small engineering test of the speech module. This is DOVE's first voice from space.

The purpose of this test is to exercise the control and data lines of the DOVE module. The actual speech was kept as simple as possible, it is un-inflected speech from the phoneme generator - "You are listening to DOVE Microsat." Three minutes of 1200 bps telemetry alternates with one minute of voice. MUCH BETTER SPEECH IS EXPECTED ONCE THE FINAL CHECK-OUT'S ARE COMPLETED.

This test is just part of a recent intensive period of engineering activity on DOVE, designed to find the cause of the control difficulties and to for-mulate a viable work around. This activity will continue, the current test is just the first milestone. The DOVE recovery team currently consists of Bob McGwier (N4HY), Harold Price (NK6K), Jim White (WD0E), and the satel-lite's owner, Junior Torres de Castro, (PY2BJO). The first DOVE voice from space began at approximately 05:15 UTC 24 MAY 92, while N4HY, NK6K, and WD0E were engaged in a conference call.

According to NK6K: "We don't think we have all the answers yet, and much remains to be done on DOVE before it is ready for its intended educational mission. DOVE may leave two meters from time to time as we continue the check-out process."

[The AMSAT News Service (ANS) would like to thank Harold Price (NK6K) for the information which went into this bulletin item.]

/EX
SB SAT @ AMSAT $ANS-144.02
AMSAT CIS & INTERNET INFO

HR AMSAT NEWS SERVICE BULLETIN 144.02 FROM AMSAT HQ
SILVER SPRING, MD MAY 23, 1992 BID:$ANS-144.02
TO ALL RADIO AMATEURS BT

AMSAT-NA "Address Book" Avilable For The Asking

In last week's AMSAT News Service (ANS) bulletin, ANS-137.01, Tom Clark's INTERNET address was erroneously given as the place to request the AMSAT "address book." The correct address to send your request to is to: listserv@amsat.org or to kb5mu@amsat.org. You will receive a list of al-most 300 calls that can be reached via INTERNET or CompuSeve Information Service (CIS). Also, there is a list of the current "special interests groups" within the AMSAT "address book" of groups that perform a variety of

functions from AMSAT Area Coordinators to those that generate keplerian elements. You can sign up to receive timely information from any of these groups by requesting that your CIS or INTERNET address be added to the list. The AMSAT Board-of-Directors (BOD) hopes that his new INTERNET utilization will allow even greater disemenation of news concerning OSCAR satellites.

For those who are on CompuServe and have never sent a message to a anyone on INTERNET, it is quite easy. To request your list, send your request either to Paul Williamson (KB5MU) or to listserv@amsat.org. When you compose your "mail" message on CompuServe and it "prompts" you for the address, in the case of Paul Williamson (KB5MU) for example, you would type his INTERNET address as follows:

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     >INTERNET:kb5mu@amsat.org      (NOTE the UPPER & lower case letters
              or                      and the ">" symbol)
     >INTERNET:listserv@amst.org
```

and on if you are on INTERNET and you want to send Paul a message, you address it to him by typing: kb5mu@amsat.org.

/EX
SB SAT @ AMSAT $ANS-144.03
AO-21/RUDAK NEWS FROM DB2OS

HR AMSAT NEWS SERVICE BULLETIN 144.03 FROM AMSAT HQ
SILVER SPRING, MD MAY 23, 1992 BID:$ANS-144.03
TO ALL RADIO AMATEURS BT

DB20S Provides Good News About AO-21/RUDAK Status

The "RESET" procedure performed by the Ground Command station in coordination with AMSAT-U was successful and the AO-21/RUDAK Beacon returned again to operation. Gerhard (DG2CV) reloaded the RUDAK software, which includes the "watch-and-bite" routines to avoid self-switching of the beacon modes. If all goes well, RUDAK will operate for the next few days according to the following message. There will be no commanding from Sunday May 24 to Friday May 29, since all AMSAT-DL team members will be at the P3D Design Meeting in Marburg, Germany. Please send any reports terrestrially to:

DB2OS @DB0FAU.DEU.EU
DG2CV @DK0MWX.DEU.EU

or to DB2OS,DG2CV via UO-22 after Thursday May28.

73s de Peter DB2OS

PS: The FM Repeater works fine, first stations worked include
ON6UG, DG2CV, DB2OS, DD4YR over Europe.

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K  HI, THIS IS AMSAT OSCAR 21 / RM1 / RS14   92-05-23 07:38:21
   RUDAK II - TEST SCHEDULE:
   UTC (Min. MOD 10)        BEACON MODE        UPLINK/MHz
          0...4          FM REPEATER            435.016
            5            RANGING RX2  2400BPS   435.155
            6            RANGING RX3A 4800BPS   435.193
          7...9          PSK TELEMETRY, KLMNY-BLOCKS
73 de DG2CV              DOWNLINK FOR ALL MODES 145.987

Y  HI, THIS IS AMSAT OSCAR 21 / RM1 / RS14   92-05-23 07:39:07

    VOLTAGES     RM1-TCMD-INTERFACE   LOCK     MEMORY ERRORS
 5V-R1 : 0.09 V    1-TX-ON  :  ON    RX2: *     SINGLE: 0
 5V-RTX: 5.02 V    2-RX12&48: OFF    RX3: -     MULTI : 0
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 5V-RAM: 4.95 V    3-RNG    :  ON      AGC
  TOTAL CURRENT    4-SOFT:  0.2 V    RX3: 144   TEMPERATURE
 14V-I :  309 mA                     RX4: 207    23.8 deg C

/EX
SB SAT @ AMSAT   $ANS-144.04
ZRO TEST SCHEDULE

HR AMSAT NEWS SERVICE BULLETIN 144.04 FROM AMSAT HQ
SILVER SPRING, MD MAY 23, 1992      BID:$ANS-144.04
TO ALL RADIO AMATEURS BT

AO-13 ZRO Test Schedule: May 1992

The ZRO Memorial Technical Achievement Award Program, or just "ZRO Test"
has a new schedule for May, 1992, via AO-13.  This activity is a test of
operating skill and equipment performance.

During a typical ZRO run, a control station will send numeric code groups
using CW at 10 words-per-minute.  At the beginning of the run, uplink power
from the control station is set to match the general beacon downlink
strength.  This is level "zero."  The control operator will send and repeat
a random five-digit number, then lower the uplink power by 3 dB (half
power) and repeat the procedure with a new random number.  This will con-
tinue to a level 27 dB below the beacon (level "nine").

A participating listener monitors the downlink signals until they can no
longer copy the numbers.  Those who can hear the beacon will qualify for
the basic award by copying the code group heard at level "zero".  The
challenge is to improve home-station performance to a point where the
lower-level downlink signals can be copied (levels 6 through 9).

The following schedule of Mode "B" and "JL" ZRO tests were chosen for
convenient operating times and favorable squint angles.  The "B" tests can
be heard on 145.840 MHz and the "JL" test on 435.945 MHz.  Ed (N5EM) will
run the "JL" tests while Andy (WA5ZIB) will continue with "B" runs.

              Saturday May 30, 1992 at 1745 UTC "B"
              Saturday May 30, 1992 at 2000 UTC "JL"

Note that the dates and days are shown in "UTC."  Any changes will be
announced as soon as possible via the AMSAT HF and AO-13 Operations Nets.

Recently updated ZRO brochures are available from WA5ZIB, Andy MacAllister,
AMSAT V.P. User Operations, 14714 Knightsway Drive, Houston, TX 77083 for
an S.A.S.E. with two units of postage.  The brochure characterizes test
procedures, means for obtaining certificates and gives some historical
background about the program.  A few certificate requests from the previous
round of ZRO tests are still pending but should be shipped by May 9th.

All listener reports with date of test and numbers copied should be sent to
WA5ZIB at the address above.  A report will be returned verifying the level
of accurate reception.

/EX
SB SAT @ AMSAT   $ANS-144.05
AO-13 OPS NET SCHEDULE

HR AMSAT NEWS SERVICE BULLETIN 144.05 FROM AMSAT HQ
SILVER SPRING, MD MAY 23, 1992        BID:$ANS-144.05
TO ALL RADIO AMATEURS BT

AMSAT-NA Operations Net Schedule
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AMSAT Operations Nets are planned for the following times. Mode B Nets are conducted on AO-13 on a downlink frequency of 145.950 MHz and Mode J/L Nets on a downlink of 435.970 MHz.

Date	UTC	Mode	Phs	NCS	Alt
30-May-92	1845	J	104	VE2LVC	WJ9F
7-Jun-92	0030	B	154	WB6LLO	W9ODI

Guest commentators are planned. Join the Net if you have questions. In the unlikely event that either the Net Control Station (NCS) or the alternate do not call up frequency, any participant is invited to act as NCS.

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Slow Scan Television on AO-13
Mode B downlink of 145.925 MHz at MA 135 on UTC Sundays. Also try Mode J downlink of 435.980 MHz at MA 135 on UTC Saturdays.

/EX
SB SAT @ AMSAT $ANS-144.06
SPRING AO-13 TRANSPONDER SCHED

HR AMSAT NEWS SERVICE BULLETIN 144.06 FROM AMSAT HQ
SILVER SPRING, MD MAY 23, 1992 BID:$ANS-144.06
TO ALL RADIO AMATEURS BT

AO-13 Spring Schedule Announced

The spring schedule for AO-13 is as follows:

N QST de DB2OS 16Mar92 00:45utc ** AO-13 Transponder Schedule **
schedule Mar 16 - Jun 08
Mode-B : MA 000 to MA 100 ! Mode-JL ON Mon, Wed !
Mode-JL : MA 100 to MA 120 ! Fri and Sat UTC only. ! Alon/Alat
Mode-LS : MA 120 to MA 135 ! S Beacon on "L" days ! 178/-6
Mode-JL : MA 135 to MA 150 ! S Transp on "B" days +-----------
Mode-B : MA 150 to MA 256 ! See AMSAT-Journals and Packet
Omnis : MA 240 to MA 030 ! Radio Bulletins for full details.

AO-10 is currently available for Mode B operation when it is view of your QTH. PLEASE DO NOT attempt to use AO-10 if you hear the beacon or the transponder signals FMing.

/EX
SB SPACE@AMSAT < G3RUH $A920508
AO-13 Operations Jun-Dec
SB AMSAT @ WWW < G3RUH $A920508

Calendar of events for Oscar-13 to the end of 1992

Date	Event	Modes	Sun Angle	Suns Position SEL/SAZ
1992 Jun 08 [Mon]	Move to 210/0	B JL S	5	-24/126
1992 Jun 29 [Mon]	L OFF	B -- -	4	-33/149
1992 Jul 20 [Mon]	Move to 150/0*	B -- -	3 to 44	-34/176
1992 Aug 17 [Mon]	L ON	B JL S	28	-26/208
1992 Sep 21 [Mon]	Move to 180/0	B JL S	-1 to 29	-2/241
1992 Nov 23 [Mon]	Move to 210/0	B JL S	-29 to -4	33/305
1992 Dec 14 [Mon]	L OFF	B -- -	-27	33/333
1992 Dec 28 [Mon]	t.b.a.		43	29/351

Notes:

1. * via Alon/Alat 180/15; expect poor performance for a few days.
2. Illumination = 100*Cos(Sun_Angle) % and needs to be better than 70%, i.e. Sun angle within +/- 45 deg.

3. SEL/SAZ is Sun's position in orbit plane (like ALAT/ALON). Move on Jul 20 to 150/0 is because Sun is at SAZ=176 i.e. apogee direction so the antennas cannot point there as the solar panels would not be illuminated. The Sun then gradually moves to SAZ around 208 so we cannot use attitude 210/0 as has been customary.

AO-13 Transponder Schedule Jun 10 - Jul 20

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Mode-B  : MA 000 to MA 165 !     Mode-JL on Mon, Wed
Mode-JL : MA 165 to MA 200 !     Fri and Sat UTC.
Mode-LS : MA 200 to MA 215 !     S Beacon on "L" days
Mode-B  : MA 215 to MA 256 !     S Transp on "B" days
Omnis   : MA 250 to MA 060 !       ALON/ALAT 210/0
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Mode L OFF after Jun 29 until Aug 17. Next attitude change Jul 20, to 150/0 until Sep 21.

Note that modes will only change at the above MAs. So if Mode-L has hung over through midnight utc into a non-L day, it will switch off at any subsequent scheduled MA change point.

Similarly if midnight UTC begins a Mode-L day, the L transponder will switch on at any subsequent scheduled MA change point, if appropriate.

INFORMATION

Don't rely on gossip and rumour! Up to date information about AO-13 operations is always available on the beacons, 145.812 MHz or 435.658 MHz in CW, RTTY and 400 bps PSK. The active command stations are listed below, and constructive feedback about operations is always welcome.

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 Peter   DB2OS  @ DK0MAV   or at
 James   G3RUH  @ GB7DDX  UOSAT-22
 Graham  VK5AGR @ VK5WI     BBS
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This bulletin prepared by G3RUH 1992 May 08 - Cambridge, England

/EX
SB SAT @ AMSAT $ANS-144.07
AO-16 EXPERIMENTER'S DAY

HR AMSAT NEWS SERVICE BULLETIN 144.07 FROM AMSAT HQ
SILVER SPRING, MD MAY 22, 1992 BID:$ANS-144.07
TO ALL RADIO AMATEURS BT

AO-16 Experimenter's Day Schedule

The AO-16 Command Team has announced the following PACSAT Experimenter's Day schedule for April and May:

DATE	START TIME	END TIME	MODE
27 May	0625 UTC - 27 May	0600 UTC - 28 May	RCO

RCO: Raised Cosine Only, No S-Band.

QRP operations are encouraged on Experimenter's Day. Uplink power should be limited to 20 watts EIRP. If you are using your AO-10/13 beams, this

means you must crank your power back to about as low as it will probably
go, no more than 2 watts. And don't forget to turn off your amplifier!

While Experimenter's Day operations are scheduled to be conducted weekly,
users are reminded that these operations may be shortened or canceled to
allow uploading of improved spacecraft software. Watch for bulletins on
the AO-16 BBS and/or the telemetry text frame for changes to the schedule.

[ANS thanks Bruce Rahn (WB9ANQ) for this bulletin item.]

/EX
SB SAT @ AMSAT $ANS-144.08
FO-20 TRANSPONDER SCHEDULE

HR AMSAT NEWS SERVICE BULLETIN 144.08 FROM AMSAT HQ
SILVER SPRING, MD MAY 23, 1992   BID:$ANS-144.08
TO ALL RADIO AMATEURS BT

FO-20 Mode JA Transponder Schedule
The following is the latest status and operation schedule for FO-20:
Mode JA Operation Schedule

27-May-92 02:00 UTC -to- 28-May-92 02:20 UTC

Mode JD Operation Schedule unless otherwise noted above.

[The AMSAT News Service would like to thank JJ1WTK and SpaceNews Editor
KD2BD.]

/EX
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Gary W. Sanders gws@n8emr.columbus.oh.us, 72277,1325
N8EMR @ N8JYV (ip addr) 44.70.0.1 [Ohio AMPR address coordinator]
HAM BBS 614-895-2553 (1200/2400/V.32/PEP) Voice: 614-895-2552 (eves/weekends)